

REMARKS

Several of the paragraphs of the specification have been amended to correct typographical errors.

A corrected Fig. 3 is enclosed with the missing reference numbers 64, 66, and 68 added thereto as well as with reference numbers 24 added for clarity. This should overcome the Examiner's drawing objections.

The Examiner has rejected Claims 1-6 and 8 under 35 USC 102 as anticipated by Pohl, 4,976,133. Further, the Examiner has rejected Claim 7 under 35 USC 103 as unpatentable over Pohl in view of Nicot, and Claim 9 under 35 USC 103 as unpatentable over Pohl in view of Ambrosina et al. Applicant disagrees that any of the claims are anticipated by or made obvious by the cited prior art. However, Claim 1 has been amended to emphasize the differences over the prior art.

The current invention relates to a testing device for testing torque wrenches. While parts of this invention are something like the sensor head shown in Figs. 4 and 5 of U.S. Patent 4,976,133, and it contains a "driving part means" 24 similar to element 28 with recess 31 of U.S. Patent 4,976,133 which is engaged by a torque wrench similar to that shown in Fig. 1 of U.S. Patent 4,976,133 but not shown in the present application, the present invention has a plurality of such "sensor heads" with

- the sensor heads having different functional characteristics, for example different measuring ranges,
- each of the sensor heads having its own signal processing means located in the sensor head itself and adapted to the characteristic of the particular sensor head,
- all of the sensor heads having the same "gain" or calibration, i.e. ratio between input torque and output signal, and
- all of the sensor heads being connected directly in parallel to a common display or evaluation means.

With such arrangement, a torque wrench to be tested can be used with an appropriate one of the plurality of sensor heads, for example a sensor head of the appropriate measuring range or with the appropriate driving part means. A user need not care about calibration but will get the correct display at the display means common to all sensor heads. Because of the direct parallel connection of all sensor heads to one single display or evaluation means, there is no need for switching means to switch from one sensor head to the other. A user simply select the sensor head by engaging the appropriate driving part means with the torque wrench to be tested.

U.S. Patent 4,976,133 to Pohl does not show a plurality of such sensor heads (Figs. 4 and 5) of different functional characteristics but only one sensor head. Thus, there is no direct, parallel connection of a plurality of sensor heads to a common display or evaluation means. In use, there is, of course, a plurality of torque wrenches, which are tested by the testing device. Each of these torque wrenches has signal processing means and provides an electrical torque signal. But these torque wrenches are the test objects, not the testing device. They are tested one after the other and are not connected in parallel to a common display. The present claims are not anticipated nor made obvious by Pohl.

Applicant encloses a certified copy of the priority application.

Please charge any additional fees due, or deposit any overpayments, to Deposit Account No. 13-1175 of the undersigned.

Respectfully,

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July 20, 2004
Salt Lake City, Utah

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